PERGAMON

Journal of Quantitative Spectroscopy & Radiative Transfer 69 (2001) III–VI

Journal of Quantitative Spectroscopy & Radiative Transfer

www.elsevier.com/locate/jqsrt

List of Contents

NUMBER 1

Note
J.-P. Bouanich 1 Comment on the paper "Electric dipole moment function of $^{12}C^{16}O$" by Kiriyama and Rao

Note
C.P. Rinsland, A. Goldman, R. Zander and **E. Mahieu** 3 Enhanced tropospheric HCN columns above Kitt Peak during the 1982–1983 and 1997–1998 El Niño warm phases

V.N. Tsytovich, U. de Angelis, R. Bingham and **A. Forlani** 9 Collective plasma effects on the solar opacity: State of the art

R.V. Orloski and **A.G. Trigueiros** 13 Weighted oscillator strengths and lifetimes for the Si VIII spectrum

M. Lazard, S. André and **D. Maillet** 23 Transient coupled radiative–conductive heat transfer in a gray planar medium with anisotropic scattering

F. Kiriyama, B.S. Rao and **V.K. Nangia** 35 Electric dipole moment function of $H^{35}Cl$

S.A. El-Wakil, A. Elhanbaly and **M.A. Abdou** 41 Solution of Fokker–Planck equation by means of maximum entropy approach

S.A. El-Wakil, A.R. Degheidy, H.M. Machali, and **A. El-Depsy** 49 Radiative transfer in a spherical medium

P. Ben-Abdallah, V. Le Dez, D. Lemonnier, S. Fumeron and **A. Charette** 61 Inhomogeneous radiative model of refractive and dispersive semi-transparent stellar atmospheres

D. Jacquemart, C. Claveau, J.-Y. Mandin and **V. Dana** 81 Line intensities of hot bands in the 13.6 μm spectral region of acetylene $^{12}C_2H_2$

P.S. Antsiferov and **Yu.V. Ralchenko** 103 Measurement and interpretation of the low-energy wing of Fe K$\beta_{1,3}$ characteristic X-ray line

M. Cattani and **J.M.F. Bassalo** 107 Tunneling racemization in dense gases and liquids

S. Kaur and **C.G. Mahajan** 111 Numerical solution of four-parameter potentials

W. Rysakow and **M. Ston** 121 The light scattering by core-mantled sphere

NUMBER 2

L.B. Zhao and **Y. Zou** 131 Resonant photoionization in the average-atom model

E.S. Chalhoub and **H.F. Campos Velho** 137 Simultaneous estimation of radiation phase function and albedo in natural waters

C. Yelleswarapu and **A. Sharma** 151 Pressure-induced self-broadening and frequency shift measurements of absorption lines of acetylene using tunable diode laser absorption spectroscopy

D.M. O'Brien 159 A model for the dependence of MSU brightness temperature on lapse rate

F.R.T. Luna, F. Bredice, G.H. Cavalcanti and **A.G. Trigueiros** 171 Weighted oscillator strengths and lifetimes for the Ar III spectrum

I.M. Grigoriev, N.N. Filippov, M.V. Tonkov, T. Gabard and **R. Le Doucen** 189 Estimation of line parameters under line mixing effects: the v_3 band of CH_4 in helium

W. Su and **M. Suzuki** 205 Evaluation of star in the UV region for the application of GCOM-A1/ODUS

F. Gilleron, H. Merdji, M. Fajardo, O. Henrot, J.C. Gauthier, C. Chenais-Popovics, W. Fölsner and **K. Eidmann** 217 LTE absorption spectroscopy of an X-ray heated boron plasma

A.C. Green, L.M. Bartlett and **G. Vaughan** 231 SAOZ measurements of total ozone at Aberystwyth

G. Moreau, J. Boissoles, R. Le Doucen, C. Boulet, R.H. Tipping and **Q. Ma** 245 Experimental and theoretical study of the collision-induced fundamental absorption spectra of N_2–O_2 and O_2–N_2 pairs

NUMBER 3

S.A. Rukolaine and **V.S. Yuferev** 257 Discrete ordinates quadrature schemes based on the angular interpolation of radiation intensity

A. Bauer and **M. Godon** 277 Continuum for H_2O–X mixtures in the H_2O spectral window at 239 GHz; $X = C_2H_4$, C_2H_6. Are collision-induced absorption processes involved?

R.B. Lowrie, D. Mihalas and **J.E. Morel** 291 Comoving-frame radiation transport for nonrelativistic fluid velocities

H.C. Miller, J.E. McCord, J. Choy and **G.D. Hager** 305 Measurement of the radiative lifetime of $O_2(a^1\Delta_g)$ using cavity ring down spectroscopy

J. Parker 327 Practical inclusion of CO_2 line mixing effects in a line-by-line atmospheric retrieval system

F. Fell and **J. Fischer** 351 Numerical simulation of the light field in the atmosphere–ocean system using the matrix-operator method

NUMBER 4

R.R. Gamache and **A. Goldman** 389 Einstein *A* coefficient, integrated band intensity, and population factors: application to the $a^1\Delta_g - X^3\Sigma_g^-(0,0)$ O_2 band

H.-Y. Li 403 A two-dimensional cylindrical inverse source problem in radiative transfer

C. Zhang, A. Kribus and **R. Ben-Zvi** 415 Volumetric optical properties of fully anisotropic participating media

V.F. Golovko 431 Continuous absorption of water vapor and a problem of the absorption enhancement in the humid atmosphere

G.V.G. Baranoski, J. G. Rokne and **G. Xu** 447 Applying the exponential Chebyshev inequality to the non-deterministic computation of form factors

D.-w. Fang, W.-j. Xie, Y. Zhang, X. Hu and **Y.-y. Liu** 469 Radiative lifetimes of Rydberg state of ytterbium

R.B. Lowrie and **J.E. Morel** 475 Issues with high-resolution Godunov methods for radiation hydrodynamics

A. Rozanov, V. Rozanov and **J.P. Burrows** 491 A numerical radiative transfer model for a spherical planetary atmosphere: combined differential–integral approach involving the Picard iterative approximation

Notes

V. Sivakumaran, K.P. Subramanian and **V. Kumar** 513 Lifetime measurement of NO_2 at 423–462 nm

V. Sivakumaran, K.P. Subramanian and **V. Kumar** 519 Lifetime measurements of NO_2 in the predissociation region 399–416 nm

V. Sivakumaran, K.P. Subramanian and **V. Kumar** 525 Self-quenching and zero-pressure lifetime studies of NO_2 at 465–490, 423–462 and 399–416 nm

NUMBER 5

P. Matheron, A. Escarguel, R. Redon, A. Lesage and **J. Richou** 535 Si II transition probabilities measurements in a laser induced plasma

T.A. Brunner and **J.P. Holloway** 543 One-dimensional Riemann solvers and the maximum entropy closure

F. Kiriyama and **B.S. Rao** 567 Electric dipole moment function of $H^{79}Br$

A. Kissel, H.-D. Kronfeldt, B. Sumpf, Yu.N. Ponomarev and **B.A. Tikhomirov** 573 Line broadening and line shift of H_2S absorption lines in the ν_2 band — collisions with H_2O and Ar in a three component mixture

C.J. Braak, J.F. de Haan, C.V.M. van der Mee, J.W. Hovenier and **L.D. Travis** 585 Parameterized scattering matrices for small particles in planetary atmospheres

R. Raghavan and **P.W. Morrison Jr.** 605 Infrared characterization of a cascaded arc plasma

C. Levoni, E. Cattani, M. Cervino, R. Guzzi and **W. Di Nicolantonio** 635 Effectiveness of the MS-method for computation of the intensity field reflected by a multi-layer plane-parallel atmosphere

W. Rysakov and **M. Ston'** 651 Light scattering by spheroids

Note

S. Alexiou 667 Simplifications in solving the Schroedinger equation for Stark broadening calculations

NUMBER 6

D. Balsara 671 Fast and accurate discrete ordinates methods for multidimensional radiative transfer. Part I, basic methods

D.L. Huestis 709 Accurate evaluation of the Chapman function for atmospheric attenuation

R.J. Exton 723 Correlation of Cs/foreign gas diffuse bands with theoretical interaction potentials

M.S.A. Krim 745 Stochastic radiative transfer in finite plane for Rayleigh scattering phase function

H. Pasternak, Y. Edan and **Z. Schmilovitch** 761 Overcoming multicollinearity by deducting errors from the dependent variable

A.P. Mishra and **T.K. Balasubramanian** 769 Radiative lifetimes of the first excited $^3P^o_{2,0}$ metastable levels in Kr I, Xe I, Yb I and Hg-like atoms